

ABSTRACT OF THE DISCLOSURE

Methods and apparatuses for compiler-created helper thread for multi-threading are described herein. In one embodiment, exemplary process includes identifying a region of a main thread that likely has one or more delinquent loads, the one or more delinquent loads representing loads which likely suffer cache misses during an execution of the main thread, analyzing the region for one or more helper threads with respect to the main thread, and generating code for the one or more helper threads, the one or more helper threads being speculatively executed in parallel with the main thread to perform one or more tasks for the region of the main thread. Other methods and apparatuses are also described.